Benzidine and salts
CAS   92-87-5

Current North Carolina AAL = 1.5 x 10^{-8} mg/m^3 (annual, carcinogen)

AAL Documentation

Inhalation Unit Risk (IUR) [1]   =   6.7 x 10^{-2} per µg/m^3

Known human carcinogen by EPA, Group A
AAL based on 10^{-6} risk

Linear Calculation
$$\frac{1}{6.7 \times 10^{-2} \text{ per µg/m}^3} = \frac{x}{1 \times 10^{-6}}$$

$$x = \frac{1 \times 10^{-6}}{6.7 \times 10^{-2}}$$

$$x = 1.5 \times 10^{-5} \text{ µg/m}^3$$

AAL for benzidine and salts[2] = 1.5 x 10^{-8} mg/m^3

This information has been reconstructed using the decision matrix established by the North Carolina Academy of Sciences Air Toxics Panel, September, 1986.

Final version- June 2013 (CMP)

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[1] EPA Ambient Water Quality Criteria Document for Benzidine, 1980. EPA-440/5-80-023. Estimated from an oral cancer slope factor of 234.13(mg/kg-day)-^{1} using standard conversion assumptions of 20 m^3 daily breathing rate and 70 kg average body weight.
[2] 1 µg/m^3 = 10^{-3} mg/m^3